CURRICULUM VITAE

Name: Hamid

Last name: Ghorbani

Postal Adress: Faculty of Mathematical Sciences, University of Kashan, Kashan, Esfahan, Iran

Tel: +98 (0) 311 / 5591-3059 (direct)

Tel: +98 (0) 311 / 5591-3068 (secretary's office)

Email: hamid332000@yahoo.com

Address: Faculty of Mathematical Sciences, University of Kashan, Kashan-Iran

Education

- 2001-2004: PhD in Statistics, Technische Universität Bergakademie Freiberg, Freiberg, Germany.
  Thesis: *Methods of Spatial Statistics for the Characterization of Dislocation Systems.*
- 1998-2000: M.Sc. in Mathematical Statistics, Shahid beheshti University, Tehran, Iran.
  Thesis: *Random Sets and Statistical Inference for Boolean Models.*
- 1994-1998: B.Sc. in Statistics, Isfahan University, Isfahan, Iran.
  B.Sc. Project: *Order Statistics and their Properties.*

Academic Achievements and Awards

- First rank among students in B.Sc. program
- PhD scholarship from the Deutsche Forschungsgemeinschaft (German Research Foundation)

Journal Papers

- Ghorbani, H. and Shafie, K. (2001): Random Sets and Statistical inference for Boolean models (in Persian). *Andishe ye Amari*, 6, pp. 34-43.

- Ghorbani, H. and Stoyan, D. (2003): Estimating the intensity of Germ-Grain models with overlapping grains. *Image Anal. Stereol.*, 22(3), pp. 147-152.

- Ghorbani, H., Stoyan, D., and Möller, H. J. (2006): Modelling of growth pocesses by Pareto and Weibull distributions. *South African Statistical Journal*, 40(3), pp. 75-98.

- Ghorbani, H., Amini, E. (2017): Modelling residential natural gas consumption by principle component decomposition and SARIMA models using R statistical software. *Student Statistical Journal*, 14(2), pp. 29-38.

- Ghorbani, H., (2018): Translation of French article entitled Les mosa ques de Thiele, *Mathematics and Society*, 3(3), pp. 37-46.

- H. Ghorbani (2019): Comments on Schoenberg et al. (2003). *Environmentics*, 7 pages. Published online.

- Ghorbani, H. (2019): Mahalanobis distance and its application for detecting multivariate outliers. *Facta Universitatis, Series: Mathematics and Informatics*, in Press.

- Ghorbani, H. (2019): Golden ratio: The mathematics of beauty, *Mathematics Interdisciplinary Research*, Published online.

- Ghorbani, H., Vali, A. and Zarepour, H. (2019): Prediction and investigation of meteorological drought using SARIMA time series and SPI index in Isfahan province (in Persian). *Journal of Sciences and Technology of Agriculture and Natural Resources*, 20 pages. in Press.

- Ghorbani, H., Vali, A. and Zarepour, H. (2019): Analysis of the climatological drought trend variations using Mann-Kendall, Sen and Pettitt tests in Isfahan Province (in Persian). *Journal of Spatial Analysis Environmental hazarts*, 18 pages. in Press.

Conference Papers

- Random Sets and Statistical Inference for Boolean Models, 5th Iranina International Statistical Conference, Isfahn, 2000.
- Estimating the Intensity of Germ-Grain Models with Overlapping Grains, 12th Workshop on Stochastic Geometry, Stereology and Image Analysis. Prague, August 25-29, 2003.
- Using Pareto and Weibull Disributions in the Modelling of Growth Processes, Karlsruher Stochastik-Tage, Karlsruhe, March 23-26, 2004.
- Stochastic Modelling of Porous Media Microstructue by Boolean Model, Iranian Conference on Mathematical Physics, Qom, November 3, 2016.
- Stochastic Modelling of Crystallization Process of Polymers, 12th International Seminar on Polymer Science and Technology, Tehran, November 5, 2016.
- Big data analysis using RHadoop, Big Data, Kashan, Jun 25, 2016.
- Statistical Tests for Cluster Detection in Spatial Data, 2th National Conference on Computational Sciences, Damghan, August 29, 2016.
- Estimation the Parameters of Boolean Models Using Stereological Methods, 47th Annual Mathematics Conference, Karaj, August 28-31, 2016.
- Modeling of the Spatial Growth Process Using Stochastic Geometry, 47th Annual Mathematics Conference, Karaj, August 2016.
- Galaxies Counts-in-Cells Distributions, First International Conference on Modern Technologies in Sciences, Amol, September 12-14, 2017.
- Estimating Boolean Model Parameters with Random Circular Primary Grains, First International Conference on Modern Technologies in Sciences, Amol, September 12-14, 2017.
- Stereology and Its Applications, First International Conference on Modern Technologies in Sciences, Amol, September 12-14, 2017.

- A Probabilistic Model on Permutation Groups Based on Kendall's τ Distance, 9th Iranian Group Theory Conference, Kashan, February, 2017.
- Simple Stochastic Models for Random Planar Tessellations, International Conference on Architecture and Mathematics, Kashan, December 16-18, 2017.
- Golden Ratio: Mathematics of Beauty, International Conference on Architecture and Mathematics, Kashan, December 16-18, 2017.
- Tessellations: Interconnection Between Mathematics and Art, International Conference on Architecture and Mathematics, Kashan, December 16-18, 2017.
- Distance Based Probabilistic Models on Permutation Groups in R Satistical Software ,9th Iranian Group Theory Conference, Kashan, February, 2017.
- Multivariate Mahalanobis Distance, Third Conference on Computational Group Theory, Computational Number Theory and Applications, Kashan, December 12-14, 2018.
- Mahalanobis Distance and Its Application For Detecting Multivariate Outliers, Third Conference on Computational Group Theory, Computational Number Theory and Applications, Kashan, December 12-14, 2018.
- Multicollinearity In Linear Regression Models and Its Diagnostics, Third Conference on Computational Group Theory, Computational Number Theory and Applications, Kashan, December 12-14, 2018.

Training course

- Advanced Course: Random Material Microstructures: Modelling and Mechanical Behaviour. Warsaw, February 2-4, 2004.

Books

- Translating the following book into Persian:
  Nonparametric Statistics. A Step-by-Step Approach, 2nd, Dale I. Foreman, Gregory W. Corder, Wiley, 2014.

Research Intersts

- Stochastic Geometry
- Spatial Statistics
- Applied Statistics

Language Skills

- English
- German